

SACH

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Preservation of Environment through Culture and Religious Practices

Climate change has brought severe repercussions for the planet. The temperature is rising every year, the sea level is rising, putting communities/villages along the coastline at risk. It has wrecked tremendous havoc around the globe which has invited conversations/protests as to how to find a solution for the crisis. The necessity of finding a solution soon is also because the crisis will most certainly lead to conflicts as we have been seeing less agricultural production, constant power cuts, scarcity of coal, water etc. However, a narrative which has been gaining traction is that we need to take steps collectively, that an individual effort can only get us so far. The communities need to be involved to move ahead and find a solution. What is important to note here is that different communities in various part of South Asia historically, through their culture and religious practices, have been preserving the environment. Most natural patches near communities' especially indigenous communities continue to remain safe as their culture and belief system ascribes supreme importance to the environment. The importance they give to their culture and religion which then is extended to the environment can become a pivotal tool to find a solution to the crisis that we find ourselves.

In this issue we have underline the efforts made by different communities to preserve forest lands. The articles included in this issue are about communities which have used religion as a tool to preserve their ways of being. Religion here is not an outside entity but an extension of their proximity to nature. They have been using creative ways to preserve the symbiotic relationship of humans with nature- such as a Tibetan community in Bhutan which has begun an annual festival to recognize significant role played by a migratory bird in their religious belief system. The article documents the genesis of a celebratory annual festival aimed at preserving Black-Necked Crane.

Another article in the issue explores the religious practices of a community along the Western Ghats in preserving biodiversity. The consideration of freshwater swamps as an abode of ancient gods meant preserving the swamps and their bio-diversity. The studies, as quoted in the article, show that sacred swamps, even though closer to human habitation, have seen higher conservation value. The historical religious and cultural praxis of considering certain patches of forests, lands as sacred have globally tied indigenous identity as an extension of the nature/ environment itself, and not as a distinct entity.

There is on article that explores this very notion that how in ancient India, the relationship between people and the environment was one of harmony and co-existence and marked by mutual care and concern. The relationship was viewed as that of interdependence of both the entities complementing each other.

In one of the article called "Natures Timeless Abode", we see that in Meghalaya some communities believe that the spirits of their ancestors live within the forests which makes it pertinent for them to save these forests. They believe that the deity which resides in forest never fails to protect the forest.

These are some of the examples which show that cultural practices, religious faith etc. have historically played an important role in preserving the environment, which is now in danger because of industrial-led development and state policies. Indigenous communities' ways of preservation and different communities' faith and culture can provide a way forward as to how to protect our environment and mitigate climate change which has become everyone's worst nightmare.

Whenever You See A Tree

By **Padma Venkatraman**

Think
how many long years
this tree waited as a seed
for an animal or bird or wind or rain
to maybe carry it to maybe the right spot
where again it waited months for seasons to change
until time and temperature were fine enough to coax it
to swell and burst its hard shell so it could send slender roots
to clutch at grains of soil and let tender shoots reach toward the sun
Think how many decades or centuries it thickened and climbed and grew
Taller and deeper never knowing if it would find enough water or light
Or when conditions would be right so it could keep on spreading leaves
adding blossoms and dancing

Next time
You see
a tree
think
how
much
hope
it holds

Courtesy : poetryfoundation.org

Across The Border from Arunachal, Bhutan Shows the Way to Save Black-Necked Cranes

By SANGEETA BAROOAH PISHAROTY AND KABIR AGARWAL, INDIA

PHOBJIKHA VALLEY, WANGDUEPHODRANG, BHUTAN:

The travel agent in Paro town of Bhutan was mildly surprised. We had told him we wished to visit the Phobjikha Valley in Wangduephodrang – just to attend an annual festival dedicated to a migratory bird the Bhutanese consider sacred.

“Indian visitors usually don’t show interest in it,” he said.

The next morning, when we arrived at the pretty U-shaped Phobjikha valley in western Bhutan, we were among just a handful of Indians at the hub of the festival – Gangteng village.

The picturesque alpine village was otherwise humming with tourists from the West armed with high-tech cameras. Many foreign visitors had been staying at Gangteng for over a week to be able to attend the annual festival, which is dedicated to the arrival of a migratory bird – the black-necked crane – to the village’s wetlands and farm yards.

Like every November 11, all roads in Gangteng on that day in 2019 led to the Gangtey dzong (monastery), a 17th century wood and stone edifice held in high esteem by the Nyingmapa sect of Tibetan Buddhism. Placed on a spur in the village and bounded on one side by the Himalayan Black Mountains, the more-than-four-century-old monastery’s sizeable courtyard offers a stunning open air stage to the colourful ‘Black

Neck Crane Festival’.

The day-long annual event, a ticketed affair for tourists, also sees a huge participation of villagers from across the valley – who fill up the audience space as well as participate in a number of traditional dances to stitch together a grand cultural spectacle for wide-eyed visitors from around the world. The primary motive of the organisers behind hosting the festival is to showcase to the visitors the place of significance the crane commands in the faith of the local communities – Tibetan Buddhism. But the platform is also to hold up how such a religious faith, in turn, has been successfully implemented in Gangteng as a conservation tool for the protection of the habitats of the cranes.

The crane species is classified as ‘vulnerable’ in the IUCN Red List, which makes the annual festival at once deserving of attention to those interested in protecting the species.

Considered an incarnation of the Sixth Dalai Lama, Tsangyang Gyatso (1683-1706), the crane, called ‘Thrung Thrung Karmo’ locally, finds mention in several Bhutanese folk songs and tales, as well as in art on the walls of people’s houses and business establishments and in paintings. We spotted a pair of cranes drawn on the main door of the Gangtey monastery as well. The Sixth Dalai Lama himself famously wrote a eulogy to the sacred bird in the 17th century, cementing its place

in the spiritual canon.

The 'holy' bird lands on the wetlands and farmyards of Probjhika valley every October, after making three rounds over the monastery – a gesture that locals interpreted to us as a blessing to the devout, evocative of the Buddha.

"It is only after the bird blesses the valley by circling on the goenpa (gompa) that villagers of the valley sow the wheat crop. They believe only then it would give a good harvest. It remains in the valley until February," a monk at Gangtey said.

"While leaving Probjikha for its summer abode in Tibet and China, the cranes again circle three times around the monastery. This circling is considered a blessing by the messengers of Buddha for peace and prosperity."

Those local religio-cultural beliefs are well manifested in the traditional pageant presented by the villagers on the monastery podium every November 11 to the visitors. It includes a performance on a forest lore that features the bird through the idiom of the famous Bhutanese mask dance Drametse. The extravaganza also comprises a graceful dance exclusive to the festival. Called black-necked crane dance, it is performed by school children in black and white costumes to resemble the bird – and choreographed to imitate its mating rituals while wintering on the wetlands of the valley.

The collective bugling sound that the participants produced during the dance at the monastery created a near-natural effect for the viewers. When they mate, the cranes bow to each other, extending their wings and making loud cooing and tutting sounds.

Though the black-necked crane has a long history around its sacredness, not just among the Tibetan Buddhists of Bhutan but also among the faithful across China, Tibet and in Arunachal Pradesh and Ladakh in India – a physical geography to which the bird is endemic.

In fact, it received its scientific name, *Grus nigricollis*, after a Russian

naturalist, Count Prezhwalsjki, spotted it in 1876 at Lake Kokonor on the Tibetan plateau. It is understood to be the last of the 15 crane species in the world to have been discovered.

In Bhutan, though the cranes winter in the Khotokha valley, Bumthang in Chokor valley and in the Bumdeling valley as well, in Probjhika valley, it is sighted in droves, sometimes in the hundreds at once.

According to the Thimphu-based Royal Society for Conservation of Nature (RSPN), of the 500-600 black-necked cranes that fly in from China and the Tibetan plateau to winter in Bhutan every year, more than 500 are spotted in Probjhika alone. Aside from filling up the wetlands of Gangteng, while attending the festival in November too, it is not rare to spot a pair of cranes flying over the monastery.

In parts of Northeast India contiguous to Bhutan and Tibet, there are also examples of cranes enjoying the status of a sacred species among indigenous communities (among the Monpa of Arunachal Pradesh). There are also other migratory birds that are important in the cultural practices of other indigenous communities.

For instance, in Assam, the arrival of the migratory bird *kuli* – or the Asian koel – every spring ushers in the onset of the local communities' biggest festival, Bohag Bihu. But only in Bhutan have we seen a migratory bird to be so important to the native population that the people carved out an annual festival around its arrival, thus also driving home the point that the bird's habitats need protection with their participation.

This leads to the question then, while faith of a community on a wild species may work as a base for its conservation, can a festival curated to celebrate such a belief be an added component to make it a success story?

FESTIVAL AS A CONSERVATION TOOL

The Bhutan experience has shown that while the religious beliefs and spirituality surrounding the bird is old, the festival needn't be. The formal celebration of the bird's arrival on the wetlands of Probjhika began only in 1999.

A closer look Black Necked Crane Festival at Gangteng reveals the significant role it has played in cementing the religio-cultural ethos of the local communities.

The festival was conceived by RSPN in collaboration with International Crane Foundation based in Wisconsin in the United States. RSPN is Bhutan's largest non-governmental organisation which, through a royal edict, has been working in multiple areas for conservation of the nature's treasures in that country.

Since its inception in 1987, RSPN has been successfully pushing the agenda of involving the common Bhutanese in the conservation of their country's environment by helping in kicking up their awareness level, and also providing them sustainable livelihood opportunities besides engaging with international experts to back up the projects with adequate scientific knowhow.

The larger objective has been to sculpt an environmentally sustainable society linked to the globally feted concept of Bhutan's Gross National Happiness; make each Bhutanese the custodian and stakeholder of the country's environment.

The Black Necked Crane Festival was designed to augment that objective too. The festival is celebrated on November 11 also because it coincides with the birth anniversary of Bhutan's fourth king Jigme Singye Wangchuk who has been instrumental in formulating initiatives for preservation of the country's environment including ideating Gross National Happiness.

The Bhutan example has, however, clearly shown that prior to hosting a festival hinged on local religious beliefs, a suitable turf needs to be created too. That the Bhutan model has been successful is also because the RSPN successfully followed that trajectory.

Since the bird is revered as holy by the Bhutanese, it never faced direct harm from the local communities in Probhika. "In fact, the local communities believe their land is blessed if the cranes land on their farmlands," pointed out Jigme Tsering, the national

coordinator for the RSPN's black-necked crane division. It meant the religious belief could well be used as a base for conservation.

"Therefore, our task of educating the community was mainly on the scientific front. Basically, informing them about the need of the species and how our 'developmental activities' would harm the cranes," Jigme said.

To push those points, it needed hard data, particularly to bring in some legal teeth to push the conservation drive. According to Jigme, RSPN has begun monitoring and keeping records on the cranes since 1986-1987 – much before the festival became a reality. "Little was known about the species and their status till then. The Probhika valley was not under any protected system. Therefore, under the Royal command, RSPN was established to manage the valley and its environment," he told *The Wire*.

In 1995, the basic legal work required to add a thrust to its conservation was achieved; the crane was granted the highest legal protection in Bhutan by bringing it under Schedule I of the Forest and Nature Conservation Act. Today, not only the Probhika valley but the Khotokha valley has also been declared Ramsar sites which means the wetlands have received attention as sites of international importance.

With legal protection in place, the next extent of attention given to make the project a success seems to be around tailoring a sustainable means of livelihood for the local stakeholders.

Said Jigme, "The idea behind the festival was also to enhance the livelihood aspect of it through homestays and sale of the local products to the visitors." He said RSPN initiated eco-tourism back in 2009 "whereby local youth were trained as guides on the valley areas; women were trained in making handicrafts and interested households were trained in hosting visitors."

Jigme called the initiative a success because, "during the festival as well as during the entire crane season (from October end to February end), the homestays are packed with

local and international guests.”

To leverage tourist footfall, the Bhutan government’s tourism department promotes the annual festival to foreign tourists and the stay options within the village.

A Gangteng villager and beneficiary of the homestay model, Norbu Wangmo, told *The Wire*, “Some years ago, I was financially helped by RSPN to renovate my existing house to make it a homestay. Several villagers who run homestays in Gangteng had got financial grants like me (RSPN organises such grants through its international donors). I have now two rooms where I host guests during the crane season.”

Since a western tourist is bound by a rule to spend a minimum of hundred US dollars a day during her stay in Bhutan, Wangmo earns 50-60 US dollars a night from both the rooms for each night of occupancy, a handsome sum for the resident of the remote region.

Before the RSPN intervention, Wangmo said he was a full-time agriculturalist.

“My main crop was the traditional one, paddy. My cropland is also where the cranes roost during the winter. In summer, I grow rice there. But how could I have left it fallow during the winter months if I had no other means of livelihood during those months. So I grew potatoes too. Now that I have an extra earning from homestay, a bit of which I can also save for a rainy day, I leave the field as it is after the rice harvest at the end of October. The cranes feed on pests and leftover grains of paddy.”

This is why RSPN’s to hold an annual festival is laudable. The idea is to provide the necessary leverage to the homestay and handicraft-sale components by creating a viable buyer base within the village itself in an organised fashion. No wonder then, every festival day, aside from the cultural extravaganza, an open field adjacent to the

monastery becomes a village fairground.

Aside from a kiosk hosted by the organisers for the interested to gather information about the cranes where well-versed officials like Jigme are present to relate to an interested visitor their habitats, behaviour and why they need protection, we spotted multiple stalls manned by locals that stock their wares. If there are local artists drawing on the spot and selling their paintings of the crane, a short distance away are women in traditional Kira vending beautiful homespun shawls and t-shirts with the bird as the motif.

Some others had brought locally made cheese and wine to sell; stones picked from the banks of the rivers Nake Chuu and Phak Chuu flowing by the valley were being sold with the crane painted over it.

Food stalls selling butter tea to local cuisine were lining up the monastery entrance; so also heaps of fruits and vegetables, rice and pulse varieties grown by the valley dwellers brought to the monastery gate in heavy sacks – thus recreating for the western tourists a rustic Asian bazaar feel. In the middle of the fair stood a life-size replica of the black-necked crane as a reminder to the people the reason why they were assembled there.

One could also spot stalls selling *Crane Boy*, a children’s book with the black-necked crane as the theme, written by author and educator Diana Cohn in 2015, and postage stamps on the crane launched by the Bhutanese government some years ago.

Recalling the early years of the festival, Jigme, present at the 2019 edition of the festival, told us, “Initially, the festival was organised on the valley floor near the wetlands. However, the logistical arrangement in the open space required huge expenses, especially labour charges for erecting tents and movement of festival equipment.”

He said the Gangteng monastery rinpoche (abbot) came to their rescue; volunteered to fund the festival provided it was held at the monastery premises to which they agreed.

“Now, the local committee, known as Gangtey-Phobji Environmental Management Committee, organises the festival through the fee collected from the visitors during the festival,” he added.

When asked about the number of sightings every year at Probhika, Jigme’s answer exuded confidence in the success of the project, “The overall population trend is observed to be increasing.”

While the general belief around global ornithologists has been that the total population of these alpine cranes is between 8,000 and 11,000 individuals, based on the success of the conservation models like that of Bhutan, some do believe that its number has grown adequately. This is also the reason why BirdLife International, the authority of IUCN that grades these cranes, are considering a proposal to downgrade the bird from ‘vulnerable’ to ‘least concern’.

On the ground, RSPN partners with the Department of Forest and Park Services to monitor the cranes and implement conservation policies and activities. A bird watching facility is maintained by RSPN by the wetlands at Probhika along with the department for visitors. “The local communities are both the beneficiaries as well as partners in the management of the habitat of the birds,” according to Jigme.

Though, after the 2019 edition – it had seen nearly 400 foreign tourists – the festival has not been happening in the usual style due to the COVID-19 restrictions on entry of foreign tourists into the country. “In 2020, the festival was organised behind closed doors but we live-streamed the event on our facebook page. In 2021 too, we did the same thing,” Jigme said.

A GOOD PRACTICE WORTH EMULATING?

COVID-19 restrictions aside, does the Bhutan model on successfully protecting the wintering sites of the black-necked cranes make it an example of best practices for the region?

The question is particularly relevant for

Arunachal Pradesh and Ladakh in India, where the annual number of sighting of the crane variety has not been encouraging and their winter habitats and wetlands are dwindling – even though the local Buddhist communities also hold the same religious and spiritual belief around the species as those of the Bhutanese.

Importantly, the Sixth Dalai Lama, who wrote the famous celebratory note to the crane, one of the primary reasons why the bird is feted as a sacred species by the believers of Tibetan Buddhism in Bhutan, was born in Arunachal.

Kamal Medhi, coordinator of the Western Arunachal Landscape for the World Wildlife Fund (WWF-India), said India, specifically the Arunachal government, need to carve out a similar model as soon as possible if it didn’t want to lose altogether the habitats of the bird in the northeastern state.

“A sustainable model like that of Bhutan is the need of the hour in Tawang and West Kameng districts of Arunachal, which have the crane’s wintering sites, and whose local communities are bound by the same religious beliefs. But to make such a model workable, it needs political will.

The Bhutan example has shown that it can be economically viable and local communities need not bypass the so-called development that, say, a hydropower project otherwise detrimental to the wintering site of the crane, could bring to their area. The government will also attract global praise for pushing a model that is environmentally sustainable.”

The conservationist was associated with the mass movement of the Monpa tribe of the Tawang district some years ago against the government’s decision then to set up a hydel project on the Nyamjang Chu river in Zemithang even though it would eat up the

wintering site of the cranes.

“My view is, do hydro projects in the state but leave out those areas which are critical to the protection of endangered species and the local environment and also have religious significance to the local communities,” he said.

Although, with the National Green Tribunal’s intervention in 2016, the hydropower project at Zemithang was dropped, the threat of the ecologically sensitive Tawang district from such projects is far from finished, especially because the local political forces have a big stake in their construction.

Phuntseng Tsering, a local Monpa youth in Zemithang, told *The Wire* in October 2021:

“However much our politicians pretend they are good Buddhists, but they will never be interested in promoting any such model to protect the sacred bird because the economic benefits of such a people-oriented model will then have to be shared with the common people like us.

Be it tourism or hydel projects, they want to keep all the financial benefits only to themselves.” Citing construction of a high-end hotel by the family of the Arunachal chief minister Pema Khandu in Tawang town as an example, he said, “For a biodiversity rich place like ours, eco-tourism is the only answer (The Bhutan model has also highlighted it). But it looks like the government thinks otherwise. This multi-storey hotel in Tawang will soon be the biggest and the most luxurious facility for tourists in Tawang which also means reaping all the top profits from the tourism sector will only be for the powerful.

While residents of Tawang town are also being encouraged by the district administration to start homestays to

accommodate both Indian and foreign tourists visiting the picturesque alpine zone, such a privilege is not allowed to the residents of Zemithang though.

“Even though we are in the same district, our area is closed for foreign tourists. The call has been taken by the defence forces apparently, citing proximity to the India-Tibet (China) international border even though we are more than two hours away from it. So we can’t even set up homestays to make a decent living,” another young man, Pakchong Tsering, told us.

The first part of the series highlighted the livelihood challenges the local population at Zemithang revenue circle, primarily farmers, face, which is leading some to engage in sand and gravel mining alongside the Nyamjang Chuu river. Such activities precariously close to the wetlands, in turn, disturb the cranes, causing them to skip the belt altogether at times.

The Bhutan model shows that providing a sustainable means of livelihood to the local communities is at the core of its success in preserving the habitat of the cranes. Financial grants to set up homestays for visitors during the crane season and training the women folk to produce handicrafts with the crane as the theme are some such successful interventions made in the Probhika valley.

Further, the RSPN project also helped local farmers change their cultivation pattern and return to the traditional way of cropping. A Gangtey villager, Kinley, said he and several other farmers had shifted to potato farming, some of whom discarded rice cultivation altogether, to earn a better profit. “But that led to the cranes not landing on our fields because we took away their food. RSPN drilled into us why we should not grow potatoes and do paddy instead,” he said.

As we reported in the first part of the series, a similar change in cultivation pattern was noted in the Sangte and Chug valleys of Arunachal, two other wintering sites of the migratory bird in that state. Even though there was no government intervention, as per the

village head of Sangte, the local people realised the folly on their own because the new rice varieties didn't suit their health.

Several farmers have since been returning to farming the traditional red rice variety without chemical fertiliser, which, in turn, has helped the cranes find their food in the fields.

Two other deterrents to the arrival of the cranes in Arunachal, highlighted in the first part of the series, have been the overhead high tension power lines posing a threat to the flying cranes, and attacks by stray dogs while roosting on the fields. In Bhutan too, those were the bottlenecks before RSPN but were tackled with government's support.

According to the Black Necked Crane Action Plan for Bhutan (2021-2025) of RSPN, Bhutan Power Corporation has replaced the overhead lines in the crane habitats with underground cables to mitigate the threat.

Additionally, sterilisation drives have been carried out of the stray dogs in and around the habitats in collaboration with the Department of Livestock and the Department of Forests and Park Services of Bhutan.

While WWF-India had helped villagers of Zemithang to set up solar fences to protect the crops damaged by wild animals – a successful drive which has now been adopted by the district administration of West Kameng too, villagers in Gangteng told us similar fencing had been installed by the government in the Probijha valley too to protect their farm yards from wild pigs.

"But during the crane season, we are not allowed to switch on the power plug to the fences as they may harm the cranes. So if you notice carefully, our areas also have the traditional stone fences to work as a natural barrier from them entering our yards," said the Gangteng farmer, Kinley.

Because of the similar challenges faced by the crane across the border in Arunachal, the WWF, for over a decade now, has been facilitating knowledge sharing through workshops and seminars in India to foster international cooperation between Bhutan,

India and China to protect the bird.

In 2011, WWF-India, the Union environment ministry, Bombay Natural History Society and Indian Bird conservation Network jointly organised a two-day workshop, 'Cranes Calling: Regional Cooperation for Conservation of Black-necked Crane among Bhutan, China and India' in New Delhi, attended by central government officials including the then environment minister Jairam Ramesh. In 2015, WWF-India held a two-day India-Bhutan workshop on the species in collaboration with the state forest department at Dirang in Arunachal Pradesh's West Kameng district.

The RSPN officials also attended the workshop and even visited the bird's wintering sites in Sangte. However, when they reached Zemithang, they were at once ordered to leave the area by Indian defence forces as foreigners are not allowed in the area.

"Protecting the wintering site in Zemithang has an added component as they are simultaneously under defence administration too," Medhi, who had taken part in the Dirang workshop, said.

Not that Bhutanese and Arunachalis have cut off all traditional relations because of border restrictions. Every year, at the revered Gorsam Chorten (monastery), located just a few kms short of Zemithang, Bhutanese pilgrims not only throng the annual fair but also set up stalls to sell their wares. "The rule is, foreigners are not allowed beyond Gorsam," said Pakchong Tsering.

He said though no monastery holds any specific festival to celebrate the cranes considered sacred in their religion, "when our revered rinpoches (abbots) visit Gorsam during the festival, they do remind the people to not harm not just the cranes but other wild animals too."

Worldwide though, conservation strategies have increasingly highlighted the need to harness the power religious and faith leaders hold over common people and states

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Memories of Longing and Lata Mangeshkar

By MANASH FIRAQ BHATTACHARJEE, INDIA

*Lata's voice is a cultural tributary of the nation,
connecting its many regions.*

WITH Lata Mangeshkar, Indian music has lost its impeccable voice.

I first saw Lata's image on the cover of an HMV record player at a neighbour's house. There was not a single day in those years, growing up during the '70s in a small lane of a railway colony near Guwahati, that passed by without Hindi film songs and a Lata song. They would be heard from every home, played either on radio, or the record player. Walking home from school, I would catch the santoor of "Na Jane Kya Hua" (film: *Dard*, 1981, music: Khayyam, lyrics: Naqsh Lyallpuri) on the radio, and not miss the entire song till I reached home, for I could hear it being played in every house. Apart from the newspaper, the radio was a key instrument that connected us to the community, real and imagined.

The first song of Lata's I learnt to sing as a child was the extremely popular Bengali song from the film *Rag Anurag* (1975) "Oi Gacher Patay Roder Jhikimiki", for which Hemanta Mukherjee scored the music. The other Lata songs in Bengali that touched a chord include the poignant "Bujhbe Na Keu Bujhbe Na", from *Kabita* (1977), a film based on a working-class woman's life, and the non-filmi song, "Aaj Noy Gun Gun Gunjon Preme", sensitising the middle class on its socialist responsibilities. Both songs are composed by Salil Chowdhury. In contrast,

you have the misty song "Otho Otho Surjai Re" from *Anusandhan* (1981), by R.D. Burman. Lata's voice was intrinsic to the world of Bengali popular music. She was translating her tongue from one language to another, and hearing her it didn't occur to us that she wasn't Bengali. Her voice had expanded the range of the octaves and the Bengali music composers of that era had no hesitation to choose Lata over others. It was in JNU that my friend Ravi Ghadge introduced me to Lata's Marathi songs. One among them that stayed with me is "Me Raat Takli" from the film *Jait Re Jait* (1977), with music by her brother Hridayanath Mangeshkar.

Lata's voice is a cultural tributary of the nation, connecting its many regions. Singing in so many tongues, she was an exemplar of the modern self-in-translation. As part of our musical upbringing, Lata's singing introduced us to the world of Hindustani *tehzeeb*. Talented Muslim and Hindu artists together produced the finest popular music of the century. This collaboration is an essential part of Lata's contribution and legacy.

The most memorable compliment for Lata perhaps comes from the anecdote by the late Pandit Jasraj recollected by Javed Akhtar.

Jasraj had gone to meet Ustad Bade Ghulam Ali Khan in Bhopal. Suddenly the song from *Anarkali* (1953), "Ye Zindagi Usi Ki

Hai”, came on the radio. Khan Saheb heard it for a while and exclaimed, “*Kambakht, kabhi be-suri nahi hoti* (Damn, she never sings out of tune).” The playful grudge in that exclamation by the master is the best tribute of all.

There are too many Hindi songs of Lata to name. I shall restrict myself to 12 songs I consider part of an adolescence of longing that now belongs to the persistence of memory. I have tried to strike a balance between mood and beauty in making these choices, with melancholy as guide. I begin with “Aye Dil-e-Nadan” from *Razia Sultan* (1983), where Khayyam produces the melody of “thahrav” from Jan Nisan Akhtar’s words. The song moves like a camel. There is a slow movement with a repetition of notes which makes you feel the song moves two steps ahead, and goes two steps backwards, like walking on sand. It is an audible illusion. Lata’s voice is as haunting as a moon in the desert. There is a seamless dissolving of music and its void. “Dikhai Diye Yun” from *Bazar* (1982) is again Khayyam setting Mir Taqi Mir’s poetry to music. What is most striking in the song is how the last word of each line stretches and often undulates like a wave to create a ripple effect. Lata sings it with the heavy mood – and breathing – of grief the song portrays.

Roshan (Roshanlal Nagrath) teams up with Sahir Ludhianvi for “Duniya Kare Sawal” from *Bahu Begum* (1967), a finely tuned ghazal. Lata sings through the Urdu phrases like a gypsy. There is another ghazal by the same duo of Roshan-Sahir, I especially love: “Jurm-e-Ulfat Ke Hume Log Saza Dete Hain” from *Taj Mahal* (1963), a sarangi-based ghazal, where love’s defiance of royalty is sung with poise and a tone of irony and sarcasm.

Two gorgeous songs composed by Jaidev add to the mood: “Ye Dil Aur Unki Nigahon ke Saaye” from *Prem Parbat* (1973), written by Jan Nisar Akhtar, where Lata sings with carefree robustness. The line “*Dharakte hain dil kitni aazadiyon se* (The heart beats with so many freedoms)” captures the spirit of those times and these: the desire for freedom is always measured against its refusal. The other

Jaidev song from *Reshma Aur Shera* (1971), written by Balkavi Bairagi, takes us back to the desert. “Tu Chanda Main Chandni” is set in the light but intricate Raga Maand. The santoor and sarangi keeps the interlude heavy and light in turn. Lata handles the variations in rhythm and tone with ease.

From all S.D. Burman songs, I choose “Piya Bina” from *Abhiman* (1973), because it suits the slow melancholic mood, more than the memorable songs in Vijay Anand’s *Guide* (1967). Written by Majrooh Sultanpuri, the song is a conversation between Lata and the flute. The expression of rift is so delicately wrung that you can hear the sweetness of love’s trembling.

The Madan Mohan song which fits the mood from *Hindustan Ki Kasam* (1974), made by Chetan Anand, on the India-Pakistan war of 1971, is “Hai Tere Saath Meri Wafa” written by Kaifi Azmi. You wonder where those days and years have gone where a poet could write (and we could dream along with him): “*Kuch dharkano ka zikr ho, kuch dil ki baat ho, / Mumkin hai iske baad, na din ho na raat ho* (Let there be mention of heartbeats, let there be heart-talk, / it’s possible, after this, day and night dissolves into nothing).” There is a disembodied spirit in the lyrics, which is perfectly tuned to give the impression of a voice that sings from the clouds. Lata rises up to the moment. Her voice floats through the air.

From Salil Chowdhury, I choose “Na Jaane Kyon” from *Chhoti Si Baat* (1978), beautifully written by Yogesh. Longing is lost in wonder. Desire mirrors the changing colour of time. Being partial to the ghazal, I must return to Madan Mohan’s thumri from *Jahan Ara* (1964), written by Rajinder Krishan, “Wo Chup Rahe To”, set in Raga Bahar. The sitar and the sarangi produce a wonderful effect together along with the rhythm.

Two songs remain in the bag. The first will be a surprise for some, a discovery for others. It is a forgotten treasure that doesn’t find mention even among Laxmikant-Pyarelal’s solos of Lata. The slightly upbeat

ghazal in *Deedar-e-Yaar* (1982), written by Sahir Ludhianvi: “*Tumko dekha toh samajh mein aya / log kyun but ko khuda mante hain.*” The combination of piano and (a sparely-used) sarangi is quite unusual. A ghazal set on piano is rare in itself. The lyrics offer the song its idolatrous charm. The rest is Lata.

The journey ends with Ghulam Mohammad’s “*Chalte Chalte Yunhi Koi Mil Gaya Tha*” from *Pakeezah* (1972), written by Kaifi Azmi. A mix of Raag Bhoop and Raag Kalyan, the orchestration is deceptively simple, in the Keherva Taal. The extinguishing of lanterns, the train whistling in the background, are haunting impressions of evanescence. The repetitive lines add to the

song’s lyric quality and effect. The music of memory lies in its repetition. The rhythmic beats of the ghungroo revolves around the dancing body trapped by longing. Performed on screen by a courtesan, the song flies out of its social and existential context, and becomes ours. The stranger you met on the way breathes in that song.

Manash Firaq Bhattacharjee is the author of The Town Slowly Empties: On Life and Culture During Lockdown (Headpress, Copper Coin, 2021), Looking for the Nation: Towards Another Idea of India (Speaking Tiger, 2018), and Ghalib’s Tomb and Other Poems (The London Magazine, 2013).

Courtesy: <https://thewire.in/>

Across the Border

Continued from page 9

to help protect the sacred species.

Liza Zogib, IUCN’s co-chair of a specialist group that engages with faith leaders and religious groups to promote the protection of the sacred sites and the sacred species, and also the founder of a Switzerland-based NGO, highlighted the need to expand the conversation around conservation beyond ‘experts’.

“Conservation, to me, is a very western concept; it somehow promotes the thought that only the experts know how to protect a species, while communities have been doing that job for ages. It is the same with demarcating certain areas as national parks; it is again a western idea which alienates the local community from the species they have lived side by side in harmony. So it is time, we also bring in more points of view and stakeholders to the table which must include the faith leaders too because they hold power over

people and also governments to help formulate environment friendly policies.”

Zogib’s contention was proved right in Arunachal when monks from the Tawang monastery led the public agitation against the hydropower project at Zemithang to protect the sacred cranes, forcing the government and the local politicians with vested interests to step back.

Lobsang Gyatso, the monk who had led the movement under the banner of Save Mon Region Federation (SMRF), when asked about the power of the faith leaders to drive such environment-friendly movements, however, added a note of caution: “It is not always easy, particularly when the moral compass of the society weakens. It then helps the corrupt politicians and business class with vested interests to weaken such a movement.”

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Courtesy: science.thewire.in

Nature's Timeless Abode

By RHINUSMITA KAKOTY LAHKAR, INDIA

With a rich natural and cultural heritage, Meghalaya's Mawphlang sacred grove never ceases to surprise visitors

ONE can clearly hear the symphony of nature here. Hundreds of tiny honeybees buzz through trees, while crickets stridulate a constant tune that becomes one with bushes. Then there are ladybirds gulping down bright

red berries and a bat hiding in a tree hollow, away from the bright sunlight that manages to pour through leaves. Combine this with old monoliths covered with moss, and you can be forgiven for thinking that you are in a



3 Saplings, 3 Years And 2 Clans

Several HUNDREDS of years ago, the Blah clan moved from the Jaintia Hills to the area, now known as Mawphlang. Other clans too joined them and together they formed what is known as the Hima Mawphlang or Kingdom of Mawphlang. Soon they faced a war. The Blah clan won but grew weary of being rulers. Then the Blahs approached a woman who came from Baligaon of Assam and was well-known for her wit. The lady, Khnah Lyngdoh Nonsai, was asked for her son to rule over Hima Mawphlang. Khnah Lyngdoh wanted to know the will of the gods. She planted three saplings in what is today the Phiephanti area of the forest. These three saplings survived and taking this to be the word of the gods, she permitted her son to become the king. It is since that day that the Lyngdohs have ruled over Hima Mawphlang. The first Lyngdoh King and four elders from different clans took their oaths on stone benches, which are still present deep inside the forest, to protect not just the people but the environment and the forests.

fairy land—a land where time has stood still.

This is Mawphlang sacred grove, which literally means moss-covered stones. Spanning 77 hectares (ha) at Mawphlang village in the East Khasi Hills, it is one of the largest ancient woods in Meghalaya. One comes upon it suddenly. First, all you can see is a verdant background to a grassy flat meadow. And then, without realising, you find yourself surrounded by trees and gasping in delight! These are no ordinary woods. According to local Khasi beliefs, it is the abode of their deity, Labasa, who protects the clan and the hima (kingdom) from all harm. In fact, they have a saying that: “There can be no hima without a sacred forest and no sacred forest without a hima”.

Several other taboos are also associated with the grove but my guide Sun Lyngdoh asks me to keep in mind two important rules: one, do not take anything away from it, not even a leaf; and two, do not leave anything behind. Even spitting and peeing is inauspicious inside the grove. It's recommended to visit the toilets built just outside the forest before the tour.

There are a group of monoliths at the entrance—three standing or male stones and one seated female stone. Some 50 years ago,

when sacrificial rituals were still taking place inside the forest, the elders would seek permission of the deity at these monoliths. If the deity appeared as leopard, they would proceed with the rituals. But sometimes, they would see the vision of a snake. In that case, the ritual would be cancelled.

I enter the grove through a leafy “doorway”, my ears already attuned to the buzz of bees and the hum of crickets. There is a stony pathway ahead but one can move in any direction. The grove has three parts: Laitdyrkhang is towards the hamlet. This is where the Blah clan, who were the original inhabitants, performed their rituals. Phiephandi is the middle section spread over some 40 ha. The Lyngdoh clan which is the custodian of all sacred groves in the East Khasi Hills, carries out its rituals here. Then there is the Law Nongkynrih on the other side, an extension for the defence of the main forest.

Not so far from the entrance is the preparation ground for rituals. The old stone “long table” is now broken but the stones still remain. At a distance lie stones of smaller lengths where young folks used to wait. Only adult men are allowed to enter the ritual spot. At the heart of Phiephandi, there is a large flat monolith, surrounded by five groups of small

monoliths. The large stone is where the king used to stand during the sacrificial rituals and small stones were the sites of sacrifice. The sacrifice inside the forest had always been a red bull. But these days, rituals take place at hamlets and the sacrifice is usually of a cock.

In the meantime, my guide Sun stumbles upon a citrus fruit khasi papeda (*Citrus latipes*) fallen on the ground. Its leaves are like a double leaf. Sun bites into it, and makes a face; khasi papeda tastes like a very sour orange. Even though one is not allowed to take anything out of the sacred grove, people can freely partake of the fruit inside the forest, making sure that they leave the seed behind. One can even break off a bit of a hive and enjoy the delicious nectar but cannot be greedy and take some home. People can however carry stream water outside to the meadow for picnic. Fallen trees and broken branches lie on the ground undisturbed, adorned with mosses. Rudraksha seeds (*Elaeocarpus ganitrus*), considered holy by the Hindus, can be seen lying in abundance on the ground.

On my way back, I go past the house of Tambor Lyngdoh, secretary of Mawphlang sacred grove. His house is also the office of Ka Synjuk Ki Hima Arliang Wah Umiam Mawphlang Welfare Society that works on rejuvenation and conservation of environment in the area. He says the grove is a biologist's paradise. There are trees over 1,000 years old. Although biologists have carried out a number of studies, all of these have been mostly done on site because nothing can be carried outside the grove. The studies show that there are 450 species of plants and herbs, 25 types of orchids, 200 numbers of Himalayan yew (*Taxus wallichiana*) and English yew (*T. baccata*), 300 *Citrus latipes* trees. Apart from these, numerous rare plant and animal species flourish inside the sacred grove.

The botanical richness of the woods despite changing Khasi traditions had prompted Sanjeeb Kakoty, professor at the Indian Institute of Management, Shillong, to prepare a film on Mawphlang in the early 1990s. "This is a veritable gene pool and

species of orchids and trees, thought to be extinct, have been discovered to be existing here," says Kakoty, also founder of the North East Data Bank, a syndicate of articles, documentaries and photographs on Northeast India.

Brahmananda Patiri, Deputy Conservator of Forests based in Barpeta, Assam, says since the area falls in the limestone and gypsum belt, the trees do not rise much above 9 metres. Almost all plants here have therapeutic properties. The *Taxus* species aid in curing breast cancer, pine flowers help in headaches and migraines, the juice of rhododendron trees are used for heart ailments, while the bark of kaphal (*Myrica esculenta*) is used for stomach ailments and allergies. Since herbs cannot be taken out, the village residents have extended the woods outside the grove periphery, which can be used.

There are several tales of people who have been punished for felling or harming a tree. The deity never fails to protect the forest. Nothing can also be planted inside the sacred grove. So the plants one sees in the grove have survived and grown on their own. While these tales and taboos might have played a role in the conservation of Mawphlang sacred grove, they do not seem to have worked for the conservation of a large number of the 215 sacred groves present across 56 himas in the state. Despite the fact that communities are responsible for management and protection of the groves as per the Khasi wisdom and culture, only 166 are listed with the Khasi Hills Autonomous District Council. Tambor and his associates are now trying to revive the "lost" groves by following the guideline of Khnah Lyngdoh Nonsai who started Mawphlang 500 years ago—by planting three species and maintaining those for three years. It is no use planting 10 million trees with a survival rate of 10 per cent. It's better to plant a lesser number like 200 or even 20 but making sure that each one survives, says Tambor.

Courtesy: <https://www.downtoearth.org.in/>

Barking Up The Right Tree: The Fascinating History of Tree Conservation Movements in India

By SANCHARI PAL, INDIA

AS Rabindranath Tagore once wrote in his essay *Tapovan*, Indian civilisation grew from the forest and learnt its principles of democracy and diversity from it. Enshrined in folklore, documented in historical texts and reflected in the daily lives of people is a multitude of evidence that supports the fact that coexistence with nature has been an integral part of Indian culture since time immemorial.

The relationship between people and the environment in ancient India was one of harmony, coexistence, mutual care and concern – the two supporting and complementing each other in their own way. For instance, some of the fundamental principles of ecology – the interrelationship and interdependence of all life – are reflected in the ancient scriptural text, the *Isopanishad*. It says:

“Each individual life-form must learn to enjoy its benefits by forming a part of the system in close relation with other species. Let not anyone species encroach upon the other’s rights.”

The concept of participatory forest management was also prevalent in ancient India as illustrated by the examples of village committees overseeing the maintenance of *panchavatis* (a cluster of five types of trees) in the ancient Indian forest texts or *Aranyakas*. Vedic-era traditions also affirm that every village will be complete only when certain categories of forests are protected

i.e. *mahavan* (the natural forest), *shrivan* (the forest of prosperity) and *tapovan* (the forest of religion).

The post-vedic period saw the evolution of various ethno-forestry practices and cultural landscapes for conservation as agriculture emerged as the dominant economic activity. The most prominent ruler in ancient India who focused on clean environment and wildlife conservation was Emperor Ashoka.

Under him, the Mauryan state maintained the empire’s forests, along with fruit groves, botanical pharmacies and herbal gardens that had been established for the cultivation of medicinal herbs. Hunting certain species of wild animals was banned, forest and wildlife reserves were established and cruelty to domestic and wild animals was prohibited.

In one of his minor edicts, Ashoka states:

“Wherever medical herbs suitable for humans or animals are not available, I have had them imported and grown. I have planted mango groves, and I have had ponds dug up and shelters erected along the roads at every eight kilometers. I have had banyan trees planted on the roads to give shade to man and beast.”

One of the finest examples of tree conservation practices that arose in ancient India has been the maintenance of certain patches of land or forests as “sacred

groves” dedicated to a village deity. Protected and worshiped, these sacred groves are found all over India, especially along the Western Ghats.

In Kodagu district in Karnataka, the Kodava tribe has maintained over a thousand *Devakadu* groves dedicated to Aiyappa, the forest god. Along river Tamraparani in Tamil Nadu, there are 150-odd temples, each with a sacred grove called *nandavanam* that provides a window into an ecosystem’s past. *Devrais* in Maharashtra, *kovilkadus* in Tamil Nadu and *pavitraskhetralu* in Andhra Pradesh are other examples of sacred groves in south India.

The Gujjars of Rajasthan have a unique practice of planting neem trees and worshiping the groves as the abode of their deity, Devnarayan. Interestingly, Mangar Bani, the last surviving natural forest of Delhi, is also protected by Gujjars of the nearby area.

Among the largest sacred groves in north India are the ones in Hariyali, near Ganchar in Chamoli district of Uttarakhand, and the Deodar grove in Shipin near Shimla in Himachal Pradesh. There are several other sacred groves as well called *deobhumis* in Himachal, *beeds* in Haryana, *sarnas* in Jharkhand, *jaheras* in Odisha and *harithans* in West Bengal.

Northeast India too has a well-documented culture of sacred groves. The most famous of these are the *law kyntangs* of Meghalaya – two large groves being in Mawphlang and Mausmai – that are associated with every village to appease the forest spirit. The *thans* of Assam, *mauhaks* of Manipur and *gumpa* forests of Sikkim and Arunachal Pradesh too act as reservoirs of rare fauna, and more often rare flora, amid rural and even urban settings.

Handed down through the ages, this love and respect for nature pervaded community life across India and saw expressions from across the land. The legendary Tamil philosopher, Thiruvalluvar, talks of nature as man’s fortress. If he

destroys her, he remains without protection.

However, nowhere is this deep ecological consciousness better exemplified than in the supreme sacrifice of the Bishnois in Khejarli a village in Jodhpur district of Rajasthan. The name of the town is derived from Khejri (*Prosopis cineraria*) trees, which were in abundance in the village.

In 1730 AD, the then-ruler of Jodhpur, Maharaja Abhay Singh, had ordered the felling of the village’s khejri trees in order to bake lime for the construction of his new fort. A royal party led by Giridhar Bhandari, a minister of Jodhpur, arrived at the village with the intention of cutting trees for the said purpose. A local woman called Amrita Devi was the first one to refuse to acceded to this demand. She famously said,

“*Sar sntey rkkh rahe to bh+ sasto jn* (If a tree is saved even at the cost of one’s head, it is worth it).”

Having said this, Amrita Devi and her three young daughters hugged the trees to protect them from being felled and were axed along with the trees. The news spread like wildfire, sparking off a strong collective protest from the local Bishnoi community. Nearly 363 Bishnoi men and women, young and old, placed their heads against the trees to prevent them being cut and were axed along with the trees.

When the Maharaja heard about their sacrifice, he was so moved that he immediately apologized for the mistake committed by his officials and issued a royal decree that prohibited the cutting of green trees and hunting of animals in and around Bishnoi villages.

At a time when the world had scarcely become aware of ecological consequences of deforestation, the Bishnois laid down their lives to protect their beloved trees in probably the first and most fierce environment protection movement in the history of the country. In 1970s, this sacrifice became the inspiration behind the famous Chipko Movement.

Chipko – “to stick” in Hindi – was a

people's movement against mindless deforestation. Poor village women in the hills of northern India determinedly hugged trees to prevent them from being cut down by the very axes of forest contractors that also threatened their lives.

Chipko's first battle took place in early 1973 in Chamoli district, when the villagers of Mandal, led by Chandi Prasad Bhatt, Sunder Lal Bahuguna and the Dasholi Gram Swarajya Mandal (DGSM), prevented an Allahabad-based sports goods company from felling 14 ash trees. The movement quickly spread across the villages in the region, with simple yet effective action eventually saving 12,000 sq.km. of a sensitive water catchment area from deforestation.

The Chipko protests in Uttar Pradesh achieved a major victory in 1980 with a 15-year ban on green tree felling in the Himalayan forests of that state. The success of Chipko movement gave rise to many similar resistance groups in India, including Appiko in Karnataka, as well as laws that restored some control over forests to the people living in and around them. Started by Pandurang Hegde in September 1983 at Salkani, the Appiko movement had a ripple effect not only in Karnataka but also in parts of Kerala and Tamil Nadu.

When nature-loving citizens and conservationists learned that the proposed hydroelectric dam would submerge a part of the forest, they campaigned for more than a decade to prevent it from happening. Although the campaign did not have any centralized planning, it was highly effective.

The sustained pressure exerted on the government by citizens using every possible means available at the time – letters to the editors of newspapers, seminars, widespread awareness programmes, petitions in court and finally direct appeals to the Prime Minister – proved ultimately successful. In 1986, Silent Valley was declared a National Park, a striking

testimony to the power of peoples' action.

Another iconic tree conservation movement was Jungle Bachao Andolan, which took shape in the early 1980s. When the government proposed to replace the natural sal forest of Singhbhum district in Bihar with commercial teak plantations, the local tribals rose up in protest. The movement, which spread to nearby states, highlighted the gap between the aims of the Forest Department and the local communities.

Now 105, Thimmakka earned the prefix Saalumara, meaning a 'row of trees' in Kannada, for planting and tending to 400-odd banyan trees along a 4 km stretch between Hulikar and Kudur. The centenarian has said she and her husband began planting and taking care of the banyan saplings after relatives and neighbours ostracized her for being unable to bear a child.

Assam's Jadav Payeng has single-handedly grown a sprawling forest on a 550-hectare sandbar in the middle of the Brahmaputra. It now has many endangered animals, including at least five tigers, one of which bore two cubs recently. It was in the summer of 1978 when Payeng, then a teenager of the Mishing tribe, decided to grow a forest on a barren sandbar to help the animals of the area. Read more about him here.

Today, conservation movements throughout the country have moved beyond just protecting trees: they integrate waste management, preservation of wildlife, cleaning of water bodies and more. Nonetheless, there is an urgent need to refocus on conserving the fast-eroding green cover in urban landscapes.

Courtesy: <https://www.thebetterindia.com/>

Note- The views regarding the Chipko Movement in this article belong to thebetterindia. ISD believes that women of Reni village have also played a vital role in Chipko Movement under the leadership of Gaura Devi .

How The Worship of Sacred Freshwater Swamps is Helping Preserve Biodiversity in The Western Ghats

By PRIYA RANGANATHAN, INDIA

LOCALS have always worshipped here. Their ancient gods have sought refuge under the dark canopy, surrounded by the soft lapping of water against damp soil. The buzz of dragonflies and damselflies accompanies the croaking and singing of frogs.

Their overlapping pitches creates a natural orchestra, accompanied by the booming call of the Hanuman langur and the bark of grazing spotted deer. Their slender legs

are sucked into the wet earth as they nose amongst the reeds and water plants, interspersing dainty bites with sips of water.

When the villagers come, chattering and wrapped in colourful saris, the deer vanish and the frogs disappear into the water with soft plops. Villagers collect a wide variety of medicinal herbs from these groves, these sacred forests that contain life-giving natural resources and, most crucially, freshwater.



Freshwater swamps in India have a long-standing relationship with tribal and village communities. In the Western Ghats, they are found in wet evergreen forests and are home to some incredibly rare wildlife and plants, as well as remnants of ancient local culture and custom.

The Western Ghats has three distinctive freshwater swamp types cradled within its fertile lap – *Myristica* swamps, *Elaeocarpus* swamps, and *hadlus*. These ancient swamp forests hold immense ecological and cultural value yet remain largely unexplored and unknown.

RELICS OF THE PAST

Knobbly knee roots poke their arches out of the still water. The strong smell of decaying organic matter makes me wrinkle up my nose as I step cautiously through the muddy waters, my boots making a dull sucking sound as I clumsily move forward.

The canopy is dark and the only sounds besides the babbling of the stream are the singing of frogs and cicadas. A frog leaps out of my way as I slip on a mossy rock, landing with a gentle plop in the murky waters. A Malabar pit viper slithers away through the tangled roots of the *Myristica* trees towering above me.

Meet the ancient *Myristica* swamps that are found in pockets of the Western Ghats from Goa to southern Kerala.

True to their name, these swamps are dominated by species in the *Myristicaceae* family, which are well-adapted to life in a submerged environment. The thin, moist bark and large leaves of these evergreen trees allow for rapid shedding of water. These relic swamp forests were first discovered in Travancore in 1960 and over 79 tree, 26 shrub, 27 climber and 44 herb species have been documented from *Myristica* swamps across their endemic range.

Twenty three of the recorded tree species are endemic to the Western Ghats, and common species include *Syzgiumtravancoricum*, *Gymnacrantheracananarica*, *Myristicafatua* var. *magnifica* and *Semecarpuskathalekanensis*.

These swamps are brimming with life, including over 600 species of fauna ranging

from flatworms to large mammals. A study in 2014 recorded 14 species of freshwater fishes and 56 species of amphibians from swamps in southern Kerala.

The slow-moving waters of *Myristica* swamps make them ideal breeding habitat for frogs such as *Nyctibatrachus jog*, *N. kempholensis*, *N. kumbhara* and the endemic *Mercuranamyristicapalustris*.

The former three species are found in the central Western Ghats while *M. myristicapalustris* makes its home in the foothills of the Agasthyamalai Hills of Kerala. Over 206 species of butterflies from six families were reported from swamps in Kerala and due to a high density of diverse host plants, these swamps have been declared as critical butterfly habitat in India.

Myristica swamps have over 16 species of freshwater fishes with three species endemic to the Western Ghats biodiversity hotspot. Research has also stumbled across 21 reptilians, including 13 species of snake. The Malabar pit viper and the Gunther's supple skink are the only reptiles endemic to the Western Ghats.

Kathalekan, one of the largest and best-known *Myristica* swamps in the central Western Ghats, is home to 59 species of birds, including the Indian great-horned owl, mountain imperial pigeon, Malabar pied hornbill, Malabar grey hornbill and Oriental pied hornbill. Endemic and endangered mammals that frequent these swamps include the Malabar giant squirrel, lion-tailed macaque, Nilgirilangur, as well as wild cats. Other endemic species frequent these swamps regularly as a perennial source of water.

ELAEOCARPUS SWAMPS

A rare discovery even in India's ancient forests, *Elaeocarpus* swamps are found in pockets of mid-elevation evergreen forest in the southern Western Ghats. Much like their close cousins, the *Myristica* swamps, they deserve higher conservation priority than they are thus far awarded. Trees in these swamp forests hail from the family *Elaeocarpaceae* and are considered valuable for their unique properties that make them valuable to the pharmaceutical industry.

Research has indicated that these trees

have chemicals that may assist in the treatment of diabetes and cancer, although few studies have explored this further. Few sustainable populations of *Elaeocarpaceae* trees have been recorded from India, as they have a low germination rate and poor success. The Agasthyamalai Biosphere Reserve is one of the few locations in India where these lesser-known swamps can be observed.

HADLUS OF KARNATAKA

Deep in the forests of Nagarahole and Bhadra Tiger Reserves, in Karnataka, one can find swampy lowlands filled with tall reeds and marsh-dwelling grasses. Gaur, sambar, and spotted deer can be found grazing in these pockets of freshwater amidst a wet evergreen forest.

In Nagarahole, hadlus are mainly concentrated in the teak-dominated regions of the tiger reserve. Due to their low-lying position in the ecosystem and the subsequent rich soils that retain moisture, hadlus remain green during the dry season, providing habitat and fodder for a range of endemic species. This microhabitat is critical for sustaining high ungulate biodiversity in both Bhadra and Nagarahole.

Little is known about the ecological significance of hadlus and their formation in the landscape. Some hadlus are known to have formed after the relocation of once-agricultural tribal settlements from protected areas, leaving behind swampy patches of fertile land.

A study on butterfly diversity in the central Western Ghats surmised that hadlus may provide critical habitat for endangered butterflies, especially serving as stopover sites for migratory butterflies. The relocation of agricultural settlement and the subsequent return of the land to its natural state is thought to be the most likely cause for the formation of hadlus along the central Western Ghats.

FAITH AND CONSERVATION GO HAND-IN-HAND

The practice of assigning religious value to forest patches dates to tribal communities that placed value on all living and non-living elements of nature, be they rocks, trees, waterbodies, or wildlife. In the Western Ghats, many hunting communities have preserved

their ancient customs, including that of sacred grove worship.

Sacred forests are preserved in honour of village gods, rather than the mainstream gods of the Hindu pantheon. Some commonly worshipped gods and goddesses in the swamps of Uttara Kannada district in Karnataka are Chowdi (water goddess), HuliDevaru (tiger god), Naga (snake god), Jatka (protector god), Bhoota (evil spirit), and Devi/Vanadevate (mother goddess and the oldest god in sacred swamps).

Having visited various sacred groves while exploring the Western Ghats, I noted the differences between sacred swamp forests and those that are not used for religious worship. Sacred swamp forests tend to be cleaner, with less disruption to the natural ecosystem, and are frequented only on religious festivals or for offerings.

Excessive trespassing is seen as disrespectful towards the gods that reside there. Similarly, collecting forest products, felling trees, poaching, hunting, fishing, and littering are viewed as offensive to the sentiments of the groves, leaving these pockets of forest as role models for community-led conservation. In contrast, non-sacred forested swamps are far more disrupted, with native vegetation frequently collected by local villagers.

Sacred swamp forests tend to be closer to human habitation, yet studies have found higher biodiversity in these patches than in non-sacred swamps. Thus, sacred swamps have higher conservation value and serve as a fascinating model for community conservation in this biodiversity hotspot.

Freshwater swamps are some of the Western Ghats' least studied ecosystems with immense hydrological and ecological value.

They provide a perennial water source for irrigation and domestic use, create pockets of cooler temperature, regulate rainfall and their tangled root systems allow for the regular flow of pure water and prevent soil erosion. These incredibly productive and biodiverse systems give rise to life and are custodians of the past.

We cannot let them slip into the shadows.

Courtesy: <https://www.scroll.in>

The Organisation of The Arts

By **CHRISTOPHER CAUDWELL**

....Continued from previous issue



POETRY grasps a piece of external reality, colours it with affective tone, and makes it distil a new emotional attitude which is not permanent but ends when the poem is over.

Poetry is in its essence a transitory and experimental illusion, yet its effects on the psyche are enduring. It is able to live in the same language with science – whose essence is the expression of objective reality – because in fact an image of external reality is the distributed middle of both propositions, the other term being *external reality* in the case of science, the *genotype* in the case of poetry. This is not peculiar to poetry; it is general to all the arts. What is peculiar to poetry is its technique, and the particular kind of emotional organisation which this technique secures. None the less, an analysis of poetry should also throw light on the technique of the other arts.

The other important artistic organisation effected by words the story. How does the technique of poetry compare with that of the story?

In a poem the affects adhere directly to the associations of the words. The poet has to take care that the reader's mind does not go out behind the words into the external reality they describe before receiving the affects. It is quite otherwise with the story. The story makes the reader project himself into the world described; he sees the scene, meets the characters, and experiences their delays, mistakes and tragedies.

This technical difference accounts also

for the more leisurely character of the story. The reader identifies himself with the poet; to both the words arise already soaked with affect, already containing a portion of external reality. But the novel arises as at first only an impersonal *description* of reality. Novelist and the reader stand outside it. They watch what happens. They become sympathetic towards characters. The characters move amid familiar scenes which arouse their emotions. It seems as if they walked into a world and used their own judgment, whereas the world presented by the poet is already soaked in affective colour. Novel-readers do not immediately identify themselves with the novelist, as a reader of poetry does with the poet. The reader of poetry seems to be saying what the poet says, feeling his emotions. But the reader of the story does not seem to be writing it; he seems to be living through it, in the midst of it. In the story, therefore, the affective tones cling to the associations of external reality. The poem and the story both use sounds which awake images of outer reality and affective reverberations; but in poetry the affective reverberations are organised by the structure of the language, while in the novel they are organised by the structure of the outer reality portrayed.

In music the sounds do not refer to objects. They themselves are the objects of sense. To them, therefore, the affective reverberations cling directly. Although the affective reverberations of poetry are organised by the structure of the language, this structure itself is dependent on the "meaning" – i.e. on the external reality referred to. But the structure of music is self-sufficient; it does not refer to outer reality in a logical way. Hence music's structure itself has a large formal and pseudo-mathematical component. Its pseudo-

logical rigour of scale and chord replaces the logical rigour of external meaning. Thus in music poetry and the novel the sound symbol has three different functions: in the novel it stands for an object in external reality; in poetry for a word-born mental complex of affective reverberation and memory-image; in music for art of a pseudo-external reality.

The social ego or subjective world is realised in artistic phantasy by the distortion of the external world. But for a world to be distorted into an affective organisation it must have a structure which is not affective (subjective) but logical (objective). Hence the socially recognised laws of music, which are pseudo-logical laws. They correspond to the laws of language, also socially recognised, which are pseudo-objective and are distorted by poetry, but not by the novel, which distorts the time and space of objective reality.

A logical external world can only exist in space and time. Hence the musical world exists in space and time. The space movement of the scale, so that a melody describes a curve in space as well as enduring in time. Although a melody is in time, it is *organised* spatially. Just as a mathematical argument is static and quantitative, although it “follows on” in time, so a melody is timeless and universally valid. It is a generalisation corresponding to the classificatory content of science. It is colourless and bare of quality in its essence. It draws from the ego a universal emotional attitude within the limits of its argument.

Harmony introduces into music a temporal element. Just as space can only be described in terms of time (a succession of steps), so time can only be described in terms of space (a space of time imagined as existing simultaneously, like a panorama). Time is the emergence of qualities. Hence two qualities sounding simultaneously describe time in terms of space. Just as the evolutionary sciences import from external reality a perspective of a whole field of qualities evolving (yet here visualised by an all-seeing eye as already fully developed), so harmony brings into music a whole rich field of

temporal enrichment and complexity. It individualises music and continually creates new qualities. It was therefore no accident but a result of the way in which the bourgeoisie “continually revolutionises its own basis,” that the richest development of harmony in music should have coincided with the Industrial Revolution, the rise of the evolutionary sciences and a dialectical view of life. There was a parallel temporal movement in story and symphony. It was equally no accident that this musical development should have coincided with a technical development which on the one hand facilitated the instrumental richness of bourgeois orchestras, and on the other hand by its increase of communications made men’s lives and experiences interweave and counterpoint each other like a symphony.

In the world of melody undifferentiated man faces a universal nature or static society, precisely as in poetry. In the novel and the world of harmony a man contemplates the rich and complex movement of the passions of men in a changing and developing world.

Rhythm was prior to either melody or harmony if anthropological researches are any guide, and we assumed that a rhythmic dancing and shouting was the parent also of poetry. The external world of music exists, not to portray the world but to portray the genotype. The world has therefore to be dragged into the subject; the subject must not be squeezed out into the object. Rhythm, because it shouts aloud the dumb processes of the body’s secret life and negates the indifferent goings-on of the external universe, makes the hearer sink deep down into himself in a physiological introversion. Hence the logical laws of music, in spite of their externality and materiality, must first of all pay homage to rhythm, must be distorted by rhythm, must be arranged round the breath and pulse-beats and dark vegetative life of the body. Rhythm makes the bare world of sound, in all its impersonality, a human and *fleshy* world. Melody and harmony impress on it a more differentiated and refined

humanity, but a great conductor is known most surely by his time. The beating baton of the conductor says to the most elaborate orchestra: "All this complex and architectural tempest of sound occurs *inside* the human body." The conductor is the common ego visibly present in the orchestra.

When man invented rhythm, it was the expression of his dawning self-consciousness which had separated itself out from nature. Melody expressed this self as more than a body, as the self of a member of a collective tribe standing in opposition to the universal otherness of nature. Rhythm is the feeling of a man; melody the feeling of *Man*. Harmony is the feeling of *men*, of a man conscious of himself as an individual, living in a world where the interweaving lives of society reflect the orchestral pageant of growing and developing nature.

Just as the rhythm of music is physiological and distorts the object to its pattern so as to draw it into the body, so the periodicity and ordering which is the essence of mathematics is "natural" and logical, and squeezes the ego out of the body into the object, so that it follows the grain of external nature.

The collective members of the tribe do not conflict in their broad desires and do not require a mutual self-adjustment to secure freedom for each, because the possibility of large inequalities of freedom does not arise. There is no real surplus of freedom. The life of the primitive corresponds almost exactly to a blind necessity. So small is the margin that to rob him of much is to rob him of life itself. Therefore just because it is, in the sum, so scanty, it is shared equally by all, and Nature, not other men, is a man's chief antagonist. But the individuation produced by the division of labour and a corresponding increase in productivity, raises this mutual interplay of different characters in conflict to a vital problem. Appearing first with the static and logical simplicity of tragedy, it is in bourgeois civilisation developed as the novel with a more flexible and changing technique. The development of orchestration in music has a

similar significance as a road to freedom.

The decay of art due to the decline of bourgeois economy is reflected in music. Just as the novel breeds a characteristic escape from proletarian misery – "escape" literature, the religion of capitalism – so music produces the affective massage of jazz, which gratifies the instincts without proposing or solving the tragic conflicts in which freedom is won. Both think to escape necessity by turning their backs on it and so create yet another version of the bourgeois revolt against a consciousness of social relations. In contrast to the escape from proletarian misery in bourgeois literature, there rises an expression of petty bourgeois misery. This characteristic expression is the anarchic bourgeois revolt, the *surréalisme* that attempts to liberate itself by denying all convention, by freeing both the inner and outer worlds from social-commonness and so "releasing" art into the magical world of dream. In the same way, petty bourgeois music advances through atonality to an anarchic expression of the pangs of a dying class. The opium of the unawakened proletariat mixes with the phantastic aspirations of the fruitlessly rebellious lower stratum of the bourgeoisie.

Because the world of music with its logical structure is pseudo-external and drawn out of the genotype, like the logical content of mathematics, the "infant prodigy" is possible in both. The full development of the novel and the evolutionary sciences requires even in genius the maturity of concrete experience. Because the external reality of music is self-generated, it is as if music directly manipulated the emotions of men.

Language expresses both external reality and internal reality – facts and feelings. It does so by symbols, by "provoking" in the psyche a memory-image which is the psychic projection of a piece of external reality, and a feeling which is the psychic projection of an instinct. But language is not haphazard group of symbols. It must be organised. This organisation is given in the arrangement of the symbols but cannot be itself symbolised by these symbols. Wittgenstein, to whom we

owe this conception, saw it as a projective correspondence between the symbols and outer reality. But there is also a projective correspondence between the symbols and inner reality, and the final shape or pattern is the result of a tension or contradiction between the two organising forces. Both orderings are shared in common with the thing projected. If this is a part of external reality, we may say symbols and symbolised share the real world; if it is a projection of internal reality, they share are the same affective manifold or social ego. Considered separately, these orderings are only abstractions. They cannot in concrete language be separated. In concrete language only their tense mutual relation is reflected, and this is the subject-object relation – man’s active struggle with Nature.

In poetry the manifold distorted or organised by the affective forces of the common ego is the logical or grammatical manifold inhering in the arrangement and syntactical organisation of the words themselves. Of course this corresponds to a similar logical arrangement “out there” in the external reality symbolised. It corresponds, but it is not the same and therefore permits an affective organisation more direct, “language” and primitive than that of the novel, where the logical manifold organised by common ego is “out there” in the external reality symbolised. Hence poetry is more instinctive, barbaric and primitive than the novel. It belongs to the age when the Word is new and has a mystic world-creating power. It comes from a habit of mind which gives a magical quality to names, spells, formulae and lucky expressions. It belongs to the “taken for granted” knowledge in language which when we discover it consciously – as in logic’s laws – seems to us a new, inhuman and imperious reality. The poetic Word is the Logos, the word-made-flesh, the active will ideally ordering; whereas the novel’s word is the symbol, the reference, the conversationally pointing gesture.

In music the logical manifold is the formal or structural element in music, corresponding

to the grammatical or syntactical element in language. It comprises the stuff-ness, the conventions, laws, scales, permitted chords, and instrumental limitations of musical theory. It is the impersonal and external element in music. This is distorted affectively in time and space by rhythm, melody and harmony. *Wovon man nicht sprechen kann, darüber muss man schweigen*, (“whereof one cannot speak, thereof one must be silent”), ended Wittgenstein, asserting in a mystical form that since language corresponds to facts, it cannot speak of non-factual entities, but must fall back on mystical intuition. This is untrue. By arbitrarily limiting the function of language Wittgenstein excludes it from the provinces it has long occupied successfully. It is precisely art – music, poetry and the novel – which speaks in the affective manifold what *man nicht sprechen kann* in the logical manifold.

The even pulse of rhythmic time contrasts with the irregularity of time successions observed in the outside world. Man naturally seizes therefore on the few natural periodicities – day and night, months and years. Hence the conception of order and therefore number is given to us physiologically, and mathematical calculation consists in giving different names to different periodicity groups; at first digital symbols, later separate written characters. The ego is projected on to external reality to order it. Subjective affective periodicity is the parent of number, therefore in mathematics affective time must be distorted by orderings found in external reality. The outer manifold is the main organising force. In music external periodicity is affectively distorted to follow the instinctive ego. The affective manifold is here the organising force. The musician is an introverted mathematician. The “lightning calculator” is an extraverted conductor.

To summarise:

Mathematics uses spatial orderings of periodicities drawn from subjective sources, these periodicities being distorted to conform with external reality.

Music uses affective orderings of

periodicities drawn from objective sources, these periodicities being distorted to conform with internal reality.

In poetry the affective rhythm is logico-spatial, not affective-temporal. Unlike the basic rhythm of mathematics, it is not distorted by cognitive material. It asserts the tempo of the body as against that of environment. Metre denies external time, the indifferent passing on of changing reality – by “marking time” and drawing in the object to it.

Music, language, mathematics, all mere sounds, can yet symbolise the whole Universe and express the active relation of internal to external reality. Why has sound, a simple physical wave system, become so apt a medium for the symbolisation of life in all its concreteness?

In the life of animals external reality has been explored by three distance receptors round which, as Sherrington has shown, the brain has evolved; these are physico-chemical smell, sound and sight. On the whole light-wave reception has proved its superiority for this purpose and sound therefore became specialised as a medium of inter-species communication. Among birds and tree-apes this would follow naturally from the engrossment of eye-sense by the demands of balance, aerial or arboreal. Long have cries – mere sounds – been the simple voice of the instincts among the warm-blooded animals from which we evolve. Long have our ears been tuned to respond with affective association to simple sounds. Birds, with their quick metabolism the most emotional of animals, express with sound the simple pattern of their instincts in an endlessly repeated

melodic line. But man goes a step further, along the line indicated by the warning cry of birds. The demands of economic co-operation – perhaps for hunting – made essential the denomination of objects and processes in external reality not instinctively responded to. Perhaps gesture stepped in, and by a pictographic mimicking of a piece of external reality with lips and tongue, man modified an instinctive sound, a feeling-symbol, to serve also as the symbol of a piece of external reality. Language was born. Man's simple cries, born of feeling, of primitive sympathy, of gesture, of persuasion, become plastic; the same cry now stood for a constant piece of external reality, as also for a constant judgment of it. Something was born which was music, poetry, science and mathematics in one but would with time fly apart and generate all the dynamism of language and phantasy between the poles of music and mathematics, as the economical operation which was its basis also developed.

It is no mere arbitrary ordering of emotion which music performs. It expresses something that is inexpressible in a scientific language framed to follow the external manifold of reality. It projects the manifold of the genotype. It tells us something that we can know in no other way; it tells us about ourselves. The tremendous truths we feel hovering in its cloudy reticulations are not illusions; nor are they truths about external realities. They are truths about ourselves, not as we statically are, but as we are actively striving to become.

to be continued...

Courtesy : Illusion and Reality

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